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Process according to claim 1 in which the enzyme is:

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- (i) P450<sub>cam</sub>, or
- (ii) a naturally occurring homologue of (i), or
- (iii) a mutant of (i) or (ii).

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Process according to claim 4 in which the enzyme is one in which amino acid 96 of P450<sub>cam</sub>, or the equivalent amino acid in a homologue, has been changed to an amino acid with a less polar side-chain.

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Process according to claim 1 in which the halogen is chlorine.

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Process according to claim 1 in which the aromatic compound is a benzene or biphenyl.

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Process for oxidising a halo aromatic substrate, which process comprises oxidising said substrate with a monooxygenase enzyme, wherein the substrate is 1, 2-dichlorobenzene, 1, 2, 4-trichlorobenzene, 3,3'-dichlorobiphenyl, 2,2',4,5,5'-pentachlorobiphenyl, pentachlorobenzene or hexachlorobenzene

28

Process according to claim 8 in which the enzyme is:

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- (i) P450<sub>cam</sub>, or
- (ii) a naturally occurring homologue of (i), or
- (iii) a mutant of (i) or (ii).

29

Process according to claim 1 which is carried out in a cell that expresses:

- (a) a monooxygenase enzyme;
- (b) an electron transfer reductase; and
- (c) an electron transfer redoxin.

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Process according to claim 10 in which (b) is putidaretoxin reductase or a homologue; or a fragment thereof; and/or (c) is putidaretoxin or a homologue; or a fragment thereof.

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Process according to claim 10 wherein the cell is one in which the enzyme (a) does not naturally occur.

32

Process for oxidising a halo aromatic substrate which has more than one halogen atom, which process comprises oxidising said substrate with a monooxygenase enzyme, wherein a ring carbon of the substrate is oxidised, the process being carried out in a cell that expresses:

- (a) a monooxygenase enzyme;
- (b) an electron transfer reductase; and
- (c) an electron transfer redoxin,

wherein the cell is one which in its naturally occurring form is able to oxidise a halo aromatic substrate.

33

A cell as defined in claim 13.

32